

## Peromyscus caniceps.

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Published 4 December 1998 by the American Society of Mammalogists

### *Peromyscus caniceps* Burt, 1932

#### Montserrat Island Canyon Mouse

*Peromyscus caniceps* Burt, 1932:174. Type locality "Montserrat Island, lat. 25°38'N, long. 111°02'W, Gulf of California, Lower California, [Baja California Sur] México."

**CONTEXT AND CONTENT.** Order Rodentia, Suborder Sciurognathi, Family Muridae, Subfamily Sigmodontinae, Genus *Peromyscus* (Musser and Carleton, 1992), Subgenus *Peromyscus*. *Peromyscus caniceps* is monotypic (Hall, 1981).

**DIAGNOSIS.** Almost nothing is known of *P. caniceps* (Avisé et al., 1974; Hooper, 1968). According to Burt (1932), it is similar in some respects and undoubtedly belongs to the same group as *P. pseudocrinitus*; however, *P. caniceps* appears to be a distinct species. It differs radically in coloration from *P. pseudocrinitus*, and the skull (Fig. 1) is distinct with zygomatic processes of the squamosal projecting laterally beyond the border of the braincase and tapering nasals, and

differs in relative length of the shelf of the bony palate and the maxillary tooth row. Average measurements (in mm) of sixteen adults (Burt, 1932) are as follows: total length, 202; length of tail, 112; length of hind foot, 22; length of ear from notch, 15.5; greatest length of skull, 25.7; condylobasal length, 22.9; basilar length of Hensel, 19.5; zygomatic breadth, 13.2; least interorbital constriction, 4.0; length and width of interparietal, 9.3 by 4.0; length of nasals, 9.4; length of shelf of bony palate, 4.0; and length of maxillary tooth row, 3.8.

**GENERAL CHARACTERS.** Burt (1932) considered *Peromyscus caniceps* as an *eremicus* type. The back and sides are heavily washed with ochraceous buff; head grayish contrasting with back and sides; lateral line indistinct; and underparts white washed with buff. In some specimens the ochraceous buff of the sides continues ventrally, with no break at the lateral line region, and covers the entire ventral surface except the throat and chin. Tail is indistinctly bicolor, dusky above, whitish below; ears dusky; and young of the species are grayish throughout. Skull is more angular than in *P. pseudocrinitus*; zygomatic processes of squamosal project noticeably laterally beyond the border of the braincase, tapering anteriorly; M1 and M2 with accessory tubercles in 13 of 20 specimens; shelf of bony palate longer than maxillary tooth row; auditory bullae small; and nasals taper slightly posteriorly.

**DISTRIBUTION.** Known only from Montserrat Island (Fig. 2), Gulf of California, Mexico (Alvarez-Castañeda and Cortés-Calva, in press; Hall, 1981; Huey, 1964). Fossils of *Peromyscus caniceps* are not known.

**ECOLOGY.** Montserrat Island is 13 km E of the Baja California peninsula, with an area of 19.4 km<sup>2</sup> (Nieto-Garibay, in press). The island has many small mountains and canyons. The soil is very poor and in some areas very stony (Figs. 3, 4). The island is most accessible from the sea on the west side. Dominant plants on Montserrat Island are golondrina (*Euphorbia magdalenae*), pitaya agria (*Stenocereus gummosus*), matorra (*Jatropha cuneata*), cholla (*Opuntia cholla*), dipúa o medesá (*Cercidium microphyllum*), and palo fierro (*Olneya tesota*—León de La Luz and Pérez Navarro, 1997). Alvarez-Castañeda and Cortés-Calva (in press) consider this species as very rare; only four specimens were captured during annual trapping from 1994 to 1997 that included 2,000 trap-nights.

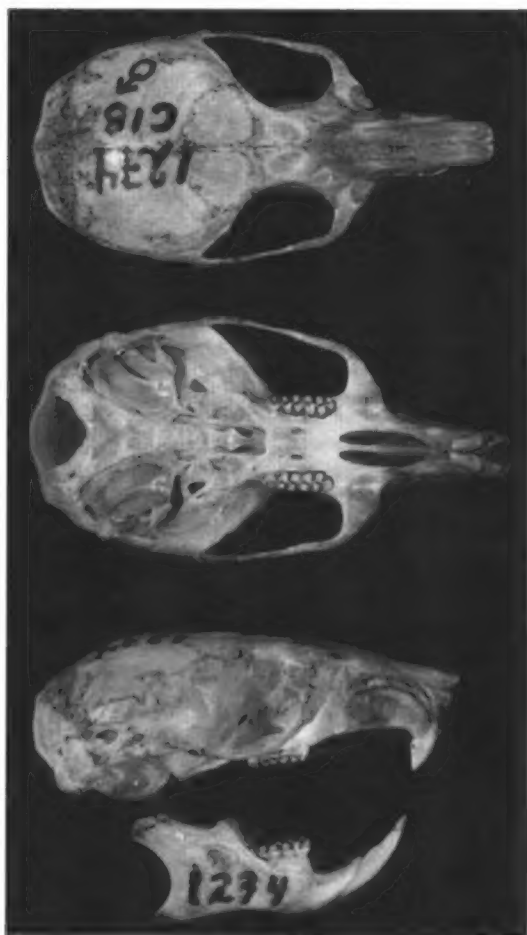


FIG. 1. Dorsal, ventral, and lateral views of cranium and lateral view of mandible of *Peromyscus caniceps* (adult male, from Isla Montserrat, Baja California Sur, Mexico, mammal collection of the Centro de Investigaciones Biológicas del Noroeste, number 1274). Greatest length of cranium is 25.47 mm. Photographs by S. Rosas.

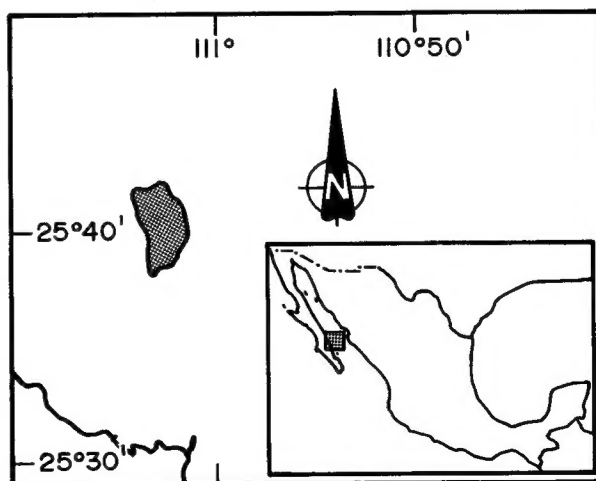


FIG. 2. Distribution of *Peromyscus caniceps* in Baja California Sur, Mexico (modified from Hall, 1981).



FIG. 3. Habitat of *Peromyscus caniceps*. Photograph by S. T. Alvarez-Castañeda.



FIG. 4. Aerial view of Montserrat island. Photograph by S. T. Alvarez-Castañeda.

The largest number of specimens were collected on sloping ground near the sea. A lactating female was collected in October 1994.

**GENETICS.** Avise et al. (1974) reported 1.1% heterogosity and 4.3% polymorphism based on allozyme analysis of 25 loci of 3 individuals of *P. caniceps*. Biochemically, *P. caniceps* is well-differentiated from forms of mainland *P. eremicus* and is monomorphic for unique alleles at the loci Ldh-1, Trf-1, and Ppb (Avise et al., 1974). The karyotype has not been described.

**CONSERVATION STATUS.** In recent decades increasing population pressure and accessibility of the islands of the Gulf of California to local fisherman have exacerbated human impact on endemic species (Bahre, 1983; Lindsay, 1983). The Mexican Government considers *Peromyscus caniceps* threatened (NOM-059-Ecol.).

**REMARKS.** Burt (1932) and Hooper (1968) consider *P. caniceps* to be a member of the *P. eremicus* species group (subgenus *Haplomylomys*), but Hooper and Musser (1964) and Hall (1981) assigned it to the *crinitus* species group (subgenus *Peromyscus*). Lawlor (1971a, 1971b) suggested that *P. caniceps* may be a subspecies of *P. eva*, but later (Lawlor, 1983) maintained it as a distinct, insular species. Carleton (1989) recognized *P. caniceps* as a distinct species in the *P. eremicus* species group.

The generic name *Peromyscus* is derived from the Greek *pera*, meaning small, *mys*, mouse, and *iskos*, a diminutive suffix (Alvarez-Castañeda and Alvarez, 1997), and *caniceps* from the Latin *canus*, hoary or gray, *ceps* (genitive *capilis*), head (Jaeger, 1966), in reference to the grayish head contrasting with back and sides. We thank D. Hafner for review of the manuscript. We acknowledge the Consejo Nacional de Ciencia y Tecnología, México, for financial support (CONACYT, I25252N).

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Editors of this account were ELAINE ANDERSON AND LESLIE N. CARRAWAY. Managing editor was BARBARA H. BLAKE.

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